

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (ORIGINAL) Seed of sunflower inbred line designated H1063R, representative seed of said line having been deposited under ATCC Accession No. _____.
2. (CURRENTLY AMENDED) A sunflower plant, or ~~parts~~ a part thereof, produced by growing the seed of claim 1.
3. (ORIGINAL) Pollen of the plant of claim 2.
4. (ORIGINAL) An ovule of the plant of claim 2.
5. (CURRENTLY AMENDED) A sunflower plant, or ~~parts~~ a part thereof, having all of the physiological and morphological characteristics of the sunflower plant of claim 2.
6. (ORIGINAL) A tissue culture of regenerable cells from the sunflower plant of claim 2.
7. (CURRENTLY AMENDED) A tissue culture according to claim 6, wherein a cell or protoplast of the tissue culture is ~~derived~~ produced from a tissue selected from the group consisting of leaves, pollen, embryos, roots, root tips, anthers, flowers, and stalks.
8. (CURRENTLY AMENDED) A sunflower plant regenerated from the tissue culture of claim 6, wherein the regenerated plant is ~~capable of expressing all~~ has all of the morphological and physiological characteristics of inbred line H1063R, representative seed of said line H1063R having been deposited under ATCC Accession No. _____.
9. (ORIGINAL) A sunflower plant with all of the physiological and morphological characteristics of sunflower inbred H1063R, wherein said sunflower plant is produced by a tissue culture process using the sunflower plant of claim 5 as the starting material for such a process.
10. (CURRENTLY AMENDED) A method for producing a hybrid sunflower seed, wherein said method comprises ~~comprising~~ crossing a first inbred parent sunflower plant with a second inbred parent sunflower plant and harvesting the resultant hybrid sunflower seed, wherein said first inbred parent sunflower plant or second said parent sunflower plant is the sunflower plant of claim 2.

11. (ORIGINAL) A hybrid sunflower seed produced by the method of claim 10.
12. (CURRENTLY AMENDED) A hybrid sunflower plant, or ~~parts~~ a part thereof, produced by growing said hybrid sunflower seed of claim 11.
13. (ORIGINAL) A sunflower seed produced by growing said sunflower plant of claim 12 and harvesting the resultant sunflower seed.
14. (ORIGINAL) An F₁ hybrid seed produced by crossing the inbred sunflower plant according to claim 2 with another, different sunflower plant.
15. (CURRENTLY AMENDED) A hybrid sunflower plant, or ~~its parts~~ a part thereof, produced by growing said hybrid sunflower seed of claim 14.
16. (ORIGINAL) A sunflower seed produced by growing said sunflower plant of claim 15 and harvesting the resultant sunflower seed.
17. (ORIGINAL) A method for producing inbred H1063R, representative seed of which have been deposited under ATCC Accession No. _____, comprising:
 - a) planting a collection of seed comprising seed of a hybrid, one of whose parents is inbred H1063R, said collection also comprising seed of said inbred;
 - b) growing plants from said collection of seed;
 - c) identifying inbred parent plants;
 - d) controlling pollination in a manner which preserves the homozygosity of said inbred parent plant; and
 - e) harvesting the resultant seed.
18. (ORIGINAL) The process of claim 17 wherein step (c) comprises identifying plants with decreased vigor.
- 19 – 26. (CANCELED)
27. (CURRENTLY AMENDED) The sunflower plant, or parts thereof, of claim 2, wherein the plant or parts thereof have been transformed so that its genetic material contains a transgene operably linked to a regulatory element, ~~and wherein said transgene is selected from the group consisting of: a relative maturity of approximately 88-98 days, high oleic acid content, low total saturated oil content, high yield and above average seeds per head.~~
- 28 - 32. (CANCELED)

33. (NEW) A method for producing a male-sterile sunflower plant comprising transforming the sunflower plant of claim 2 with a nucleic acid molecule that confers male sterility.
34. (NEW) A male sterile sunflower plant produced by the method of claim 33.
35. (NEW) A method of producing an herbicide resistant sunflower plant comprising transforming the sunflower plant of claim 2 with a transgene that confers herbicide resistance.
36. (NEW) An herbicide resistant sunflower plant produced by the method of claim 35.
37. (NEW) The sunflower plant of claim 36, wherein the transgene confers resistance to an herbicide selected from the group consisting of imidazolinone, sulfonylurea, glyphosate, glufosinate, L-phosphinothricin, triazine and benzonitrile.
38. (NEW) A method of producing an insect resistant sunflower plant comprising transforming the sunflower plant of claim 2 with a transgene that confers insect resistance.
39. (NEW) An insect resistant sunflower plant produced by the method of claim 38.
40. (NEW) The sunflower plant of claim 39, wherein the transgene encodes a *Bacillus thuringiensis* endotoxin.
41. (NEW) A method of producing a disease resistant sunflower plant comprising transforming the sunflower plant of claim 2 with a transgene that confers disease resistance.
42. (NEW) A disease resistant sunflower plant produced by the method of claim 41.
43. (NEW) A method of introducing a desired trait into sunflower inbred line H1063R, wherein the method comprises:
 - (a) crossing H1063R plants grown from H1063R seed, representative seed of which has been deposited under ATCC Accession No. PTA-_____, with plants of another sunflower line that comprise a desired trait to produce F1 progeny plants, wherein the desired trait is selected from the group consisting of male sterility, herbicide resistance, insect resistance, disease resistance and oil content;

(b) selecting F1 progeny plants that have the desired trait to produce selected F1 progeny plants;

(c) crossing the selected progeny plants with the H1063R plants to produce backcross progeny plants;

(d) selecting for backcross progeny plants that have the desired trait and physiological and morphological characteristics of sunflower inbred line H1063R listed in Table 1 to produce selected backcross progeny plants; and

(e) repeating steps (c) and (d) two or more times in succession to produce selected third or higher backcross progeny plants that comprise the desired trait and all of the physiological and morphological characteristics of sunflower inbred line H1063R listed in Table 1 as determined at the 5% significance level when grown in the same environmental conditions.

44. (NEW) A plant produced by the method of claim 43, wherein the plant has the desired trait and all of the physiological and morphological characteristics of sunflower inbred line H1063R listed in Table 1 as determined at the 5% significance level when grown in the same environmental conditions.

45. (NEW) The plant of claim 44, wherein the desired trait is herbicide resistance and the resistance is conferred to an herbicide selected from the group consisting of: imidazolinone, sulfonylurea, glyphosate, glufosinate, L-phosphinothricin, triazine and benzonitrile.

46. (NEW) The plant of claim 44 wherein the desired trait is insect resistance and the insect resistance is conferred by a transgene encoding a *Bacillus thuringiensis* endotoxin.

47. (NEW) The plant of claim 44 wherein the desired trait is male sterility and the trait is conferred by a cytoplasmic nucleic acid molecule that confers male sterility.